

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 2, 5-9, and 17-21 were pending in this application, of which claims 4 and 10-16 were previously withdrawn from consideration. In this Amendment, Applicants have amended claims 6, 17, 18, and 21 and added claims 22-29. Claims 3, 4 and 10-16 have been canceled. Accordingly, claims 2, 5-9, and 17-29 will be pending herein upon entry of this Amendment.

In the final Office Action mailed July 25, 2005, the Examiner rejected claim 18 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,483,876 to Davis ("Davis"). The Examiner also rejected claims 2, 5-9, and 17-21 under 35 U.S.C. § 103(a) as unpatentable over combinations of Davis, German Patent DE 9417837 to Muller et al. ("Muller"), and U.S. Patent No. 3,958,740 to Dixon ("Dixon"). To the extent these rejections might still be applied to the claims presently pending in this application, Applicants respectfully traverse the rejections.

Applicants have amended claims 6, 17, 18, and 21 to clarify at least two features that are distinguishable over the applied prior art. The first feature is recited in amended claims 6 and 21 and relates to the use of two pairs of guide rollers to precisely and quickly move the second beam unit in a vertical direction. The second feature is recited in amended claims 17 and 18 relates to the present invention's ability to transfer work objects in the horizontal direction without obstruction.

Regarding the first feature, amended claims 6 and 21 recite that the slide comprises first and second pairs of opposing guide rollers that contact the second beam unit. Figure 2 best illustrates these pairs of opposing guide rollers 21A-B and 23A-B. As described in the

specification at, for example, page 6, line 23 to page 7, line 14, the opposing guide rollers ensure precise guidance and displacement of the second beam unit. The present invention can therefore provide more accurate and quick movement in comparison to prior art devices such as Muller's. In contrast to the precise guidance provided by the opposing rollers of the present invention, Muller discloses a vertical beam 16 having guide rails 80 and 82 mounted on guide rollers 64, 66, 68, and 70, which together support only one side of vertical beam 16. (See Figures 6 and 8 of Muller.) This unbalanced configuration hinders the precision and speed of displacement, especially considering that the belt 22 is offset from guide rails and rollers and presumably applies at least some torque between the vertical beam 16 and the guide rails 80 and 82.

Applicants have also added new claims 22-28 to recite further aspects of this distinguishing feature of the present invention, support for which can be found in the present application at, for example, page 6, line 23 to page 7, line 35 of the specification and Figures 2 and 3. New claims 22 and 24 recite that the belt member is disposed in between the first and second pairs of opposing guide rollers, which provides further stability to the second beam unit 22 and is shown in Figure 2. New claims 23 and 26 recite third and fourth pairs of opposing guide rollers, which again provides further stability to the second beam unit 22 and is described with reference to Figure 3 (*see, e.g.*, page 7, lines 9-14 of the specification). New claims 25 and 28 recite the relative positions between the guide rollers and the second beam unit, as is shown, for example, in Figure 2. New claim 27 recites an I-beam embodiment of the second beam unit, as is shown, for example, in Figure 2.

Regarding the second distinguishing feature, amended claims 17 and 18 and new claim 29 recite that horizontal transfer of the work object is unobstructed by the structure of the invention. In the Office Action, the Examiner cited Davis as teaching various aspects of the work object transfer of the present invention. However, the work part transfer apparatus of Davis is a screw spindle-driven device wholly unrelated to the belt driven apparatus of the present invention. Indeed, the present invention's use of the horizontally extending beam enables the support of the gripping mechanism from above and the transfer of work objects in an unobstructed horizontal direction, reaching beyond the end situation of the beam. In contrast, Davis requires a vertical guide tower 58 housing a spindle 64, which obstructs the transfer of work parts in the horizontal direction. Because gripping mechanism 10 is mounted next to the tower 58, the width of the work part cannot extend past the tower 58. (See, *e.g.*, column 5, lines 21-41 and Figures 2, 4, and 5.) The tower 58 of Davis therefore limits the size of the work part that Davis can handle, whereas the present invention can accommodate virtually any size work object. This structural difference distinguishes the present invention over Davis. In addition, because of the obstructions caused by Davis' spindle-driven apparatus, one of ordinary skill in the art would not be motivated to apply Davis' teachings to a belt driven apparatus that supports the gripping mechanism from above and is freely moved in a horizontal plane.

Accordingly, Applicants respectfully submit that amended claims 6, 17, 18, and 21 are patentable over the prior art of record. Applicants also respectfully submit that dependent claims 2, 5-9, 19, 20, and 22-29 are also patentable due at least to their dependence on allowable base claim.

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In view of the foregoing, all of the pending claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone Applicants' undersigned representative at the number listed below.

PILLSBURY WINTHROP
SHAW PITTMAN LLP
1650 Tysons Boulevard
McLean, VA 22102
Tel: 703/770-7900

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Respectfully submitted,

STEFAN BLOMGREN ET AL.

By:



Michael Bednarek
Registration No. 32,329

MB/SPA/ggb

Customer No. 28970